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Technology, Theology, Thinking, and the Church
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From the midst of what sometimes seems a brave new world of communication—Web 2.0, blogs, mobile phone service from almost anywhere, video by mobile phone—we should not forget that the Church and humanity have lived through it all before. In fact, our communication revolution follows several others, dating back at least 3500 years, starting with the invention of writing, jumping to the mechanical writing of the printing press, to the electrical communication of the telegraph, and finally to our electronic world. At each stage, humans encoded communication in ever more complex symbolic and technical systems, which make communication more powerful but require more sophisticated interpretation. Both have an interesting and not always predictable impact on theology and Church life.

The pattern of our communication and the larger communication world, of which it forms a part, create a communication environment for human living. Like any environment, one can study it, and people do, under the general title media ecology. What can we know about the communication environment? Several principles apply to its study. First, like all environments, its elements interact and affect each individual and process within it. Second, a change in one area will lead to changes in others—enhancing or diminishing them, for example. Third, people often take their environments for granted; not noticing them, they do not notice their influence. Media ecology attempts to call attention to the environment created by communication.

To see how communication technology has influenced the Church, we can start with how the People of God have interacted and shared their faith. It shouldn't surprise us to see changes in one area—communication technology—prompting changes in another—the articulation of faith; similarly, we should not find it surprising that other parts of the environment (including religious practices) trigger changes in communication. Addressing only writing, Walter Ong, S.J., memorably called attention to this pattern of interacting changes with a chapter heading, "writing restructures consciousness." Here he traced thousands of years of the history of writing systems, using evidence from oral tales, proverbs, and epic poetry, and later novels and printed texts, to show how key elements of our thinking processes and self-consciousness changed once humans had mastered writing.

Changing Media Environments

As an introduction to our own new world of technology and its role in the Church, let's take a moment to review some of what Ong claims. An oral—or non-writing—culture depends primarily on memory, ritual, and language to preserve all that matters. Because we literates dwell so much in writing, we find it hard to fathom or even imagine that. Think for a moment: Once an oral group forgets something, it has lost it forever. No writing of notes, no looking things up in an encyclopedia, no reference sources, no daily newspapers, no novels, no written numbers or bank accounts; no advanced technologies that require written plans or higher maths. All that people need to know, they must keep in memory. How do people without writing remember? The answer to this question will tell us something about how people without writing think; it will also help us to think about how we literates think, with our consciousness restructured by writing. And those two things together will tell us something about how we think and act religiously differs from the practices of our oral ancestors. So, how do people without writing remember?

People find stories more memorable than isolated facts, so oral cultures connect everything valuable to narratives, built around heroes and built around elaborate familial

relationships—again we find it easier to remember people and their relatives than otherwise disconnected facts. No surprise that the ancient Greeks include census data in the *Iliad* or that the ancient Hebrews give elaborate lists of the tribes of Israel in the Bible. From this perspective, it's also no surprise that Odysseus' 20-year journey home involved several shipwrecks. At each stage he had to build a new boat. The *Odyssey* not only entertained a seafaring people but formed an encyclopedia of easily remembered instruction that reinforced the apprenticeship system of building boats. The Old Testament shows similar concern for the family relations of ancient Israel—who are we? It abounds with stories of families who responded to God's call in order to explain who this people is. Other parts have narratives of how to prepare food, treat illnesses, worship God, manage practical affairs, remain faithful to God—and all else that matters.

But stories—especially easily and dramatically memorable ones—have particular structures:

> • heavy characters who embody key points: wily Odysseus, obedient Abraham, wise Solomon, various tricksters in African stories, and so on. We find it easy to remember such people, so oral cultures structure all kinds of knowledge around what these people do. This system of remembering works hand in hand with the educational system—teaching the young what matters by having them imitate cultural models. The number of such people, though, has its limits, so only a few models survive.
> • lots of repetition: should people forget one part of a story, they will remember the rest, the parallel accounts, or variations on the first story. We literates find so much repetition tedious because writing teaches us the value of the concise formulation. We can always turn the page back or look things up when we forget, things that members of an oral culture cannot do.
> • group participation: the storyteller tells the story, but the hearers participate by singing or chanting, by reminding the teller of parts, by seeking expansions. Think of how young children (still an oral culture within our literate world) correct adults who don't read the familiar bedtime stories just right.
> • agonistic plots: stories that narrate struggles, fights, or contests keep our interest and stay in memory longer. They promote identification with the characters; that emotional identification makes it easy to remember (and harder to be dispassionate or evaluate things logically—a habit that remains to this day, as any sports fan shows when discussing a favorite team).

Telling stories with these characteristics makes it easier to remember both the story and the deeper lessons of the stories. Hearing a steady diet of such stories subtly shapes human thinking and consciousness; for example, the agonistic stories reinforce a world view of competition. Because people think about the stories they hear, people judge according to the norms of the stories. But stories also limit what we can know. Astrophysics does not lend itself to a story format; a simpler creation narrative does. DNA and antibiotics don't seem suited to stories about health; magical cures do. Stories help memory, not complex explanations.

Memory involves more than stories, though. Oral peoples use their whole bodies to remember. They recall not just words but music. Even today we find songs easier to recall, perhaps because the music and the words link different areas of our brains. Oral peoples use songs and other memory aids—pictures on cave walls, carved images, places, rock formations: all these and more can trigger memory. Oral peoples also use movement as a memory aid. They act out what they remember: how to hunt, how the clever act, how God has blessed them. The ritual forms the basis of the recollection. "Why is this night different from any other?" presents

the drama of the exodus. Like stories, these techniques lend themselves to thinking about some things but not about others. God, for example, becomes a God who acts in the stories, not the God of abstract virtues and analysis. Theology in oral cultures deals not with God's attributes but with God's actions as a consistent character across the stories.

Language itself helps memory. Rhythm, rhyme, and poetic meters make things easier to remember. Words that fit into a rhythm or rhyme scheme reduce uncertainty in remembering. For an English speaker, the doggerel, "Jack and Jill went up the _____" leaves very little choice other than "hill" for the missing word. Using language in these ways creates a cultural value for decorative language, for elaborated rhythms, for set ways of presenting information, And that shapes human consciousness in particular ways. We think what Ong calls "memorable thoughts," in pleasing turns of phrase. It sounds good. In fact, ancient rhetoricians counseled their students to sound good, even above logical argument. These pleasing formulations work their way into religious understanding through hymns, chants, and poems, even at the expense of affecting meaning.

Oral cultures also abound in proverbs and wisdom sayings. These pithy, often rhymed, statements guide behavior and tell people what to do. Rather than analyzing a problem, a conflict, or a new situation into cause and effect or their components (methods that seem so natural to us literates), the wise woman or man of an oral culture seeks out the appropriate proverb for the situation. The wisdom lies in knowing what proverb fits which situations. Oral cultures organize knowledge along these principles, often grouping wisdom sayings by person or situation. We literates can find this puzzling since writing teaches us to organize things differently.

Because they cannot afford to forget, oral cultures become highly conservative. They don't try new things for fear that they will forget the old, tried methods. But this does not mean that they do not adapt to new circumstances. As the world changes, they change their stories. This is the world of ancient Israel. Biblical accounts and stories capture the wisdom and culture of the tribes of Israel and their encounter with a faithful and mysterious God who loves them. While that narrative remains constant, other lesser things can change: even the names of the 12 tribes of Israel change as one group supplanted another. As the monarchy grew more powerful, the oral culture of Israel preserves more stories of kings and fewer of the judges.

And because the accounts of God or of a nation's history and identity are important things, they are among the first things written down when people began to use the new technology of writing. Ong, in fact, argues that we can learn much about oral cultures by examining those first written texts since they reflect the ways of thought characteristic of oral cultures. Writing does not show its full effects on human thought for centuries. As a new technology, writing affects only a relatively few people at first—the scribes and educated classes, for example. Once writing begins, human cultures then enter what Raymond Williams called "the long revolution," a slow march to universal literacy that took over 2,000 years in the West. As enough people learn to read and write, cultures change, moving away from oral forms of expression, memory, and valuation—trusting knowledge to written texts, changing education to book learning. The process did not lack its critics. One of the most vehement, Plato, argued against the written text (it just lies there, unable to respond to questions; it weakens the memory) even as he wrote his dialogues. In fact, the dialogues with Socrates show strong oral traces, learning by conversation, stressing concrete situations, even as the impact of writing takes hold as Plato reaches towards abstractions and the kinds of textual criticism not seen before writing.

How else does writing affect humans? We can start with the obvious: it removes the need to remember everything. It frees people to think other thoughts. Where members of an oral culture had to focus on recalling the old, members of a culture with writing can record the old and experiment with the new. Writing gives people a gift of time. And that time opens up the mind. Rather than constantly repeating and listening to the same stories and proverbs, people use writing for that and consequently have more mental time. Writing also gives people the freedom to experiment with new thoughts and new ways of doing things; should those not work, they still have the written record of the old.

Writing gives people a greater opportunity to criticize their own thoughts by disconnecting them from the emotional and narrative attachments fostered by the oral stories. We've all had the experience of writing something, setting it aside for a week or so, then looking at it again. It's much easier to evaluate our own thinking with that critical and literal distance, something impossible without writing. Having all manner of cultural knowledge in written form fosters a critical sense, as Abelard demonstrated in his *Sic et Non* by noting how the Bible seemingly contradicted itself. Abelard placed texts side by side for direct comparison—an almost impossible task for an oral culture. Writing clearly revealed what the oral discourses hid. Because writing does not need repetition, good writing avoids it; because writing does not need concrete examples to help memory, it fosters abstraction and abstract thought. Indeed, one of the great accomplishments of classical Greek culture lies in distinguishing the logic of writing from the logic of oral argument. Even with writing still confined to an educated elite, Aristotle, for one, indicated that what worked in effective speeches in the public arena became ineffective in writing. Other examples of abstract thought appear in a mathematics, whose complex formulae and proofs demand the help of written materials. Writing changes not only what people think about but how they think.

And, as an element of a media environment, the tool of writing changes education, albeit very slowly. Literate students can read texts rather than interact with a teacher. (But in testimony to the conservative nature of education, consider that the recorded teaching of Thomas Aquinas in the 13th century *Summa Theologicae* is still highly oral, with questions and responses, much like a debate.) The change in education due to literacy did not really take effect until the printing press allowed for rapidly produced inexpensive copies of books. That change in turn changed cultures and promoted universal education.

Writing and widespread literacy changes all aspects of cultures, as Elizabeth Eisenstein has carefully documented. Cultures with writing develop new ways of investigation (what the West called science and the scientific method), ways of disseminating knowledge and information (book publishing and newspapers), new business practices based on writing, legal standards based on written contracts and non-oral evidence. Even storytelling changes as creative artists turn from oral forms like epic and poetry to the novel; essayists like Montaigne invent forms of commentary that move social observation from the conversations of the salons to the written page, serving among other things to democratize political discussions.

Writing also affects how cultures organize knowledge. As simple a thing (at least from our literate perspective) as alphabetical order could not exist without writing. Writing and book publishing enable all manner of organization: indices, tables of contents, organizational charts, visual diagrams, illustrations . . . the list goes on and on. We forget that it took several hundred years of printing to standardize these organizational methods. Writing organizes things symbolically, using the very symbols of the alphabet and, in so doing, it encourages yet more symbolic expression. People think more abstractly with the tools writing affords.

Ong points out another psychological consequence of writing in the historical evidence for a growing interiority—the more carefully examined and self-conscious sense of self. Early written materials, based on the transcription of oral culture materials, does not indicate much of an interior sense. However, because writing promotes reflection through recording our thoughts for later consideration and through fostering a habit of critically examining what appears frozen in time on paper, that same habit carries over into our sense of who we are. With consciousness freed from remembering the oral heritage, people have time and tools to cultivate their own interior life. That habit extends even to creative work, as artists and writers explore the psychological dimension of life. A number of scholars have pointed to the growing sense of the self and of inner-direction that appears in cultures only when writing becomes firmly established. This, too, has an impact on Church life as spiritual teachers encourage individuals to keep notebooks of their thoughts, interior movements, and insights. Religious practice involves not only external behavior but an interior life as well.

By reducing the cost of reproduction and increasing the speed of producing written materials, the printing press vastly expanded the scope of materials available to people. But the printing press affected more than writing: illustrations, woodcuts, and engravings became common. Most directly relevant to these considerations, religious art moves from churches and monasteries into the home, nourishing the imagination.

Later innovations in communication technology—electrical and electronic—have also profoundly affected human cultures by changing the media environment. Virtually instantaneous communication via the telegraph and telephone affected governments, business, education, the military, travel, language, writing, and other parts of human culture, as James Carey and Margaret Cassidy have shown. These changes, as any cultural changes do, occur slowly, but as new generations grow up with communication technologies they make them increasingly their own and change practices that seemed natural to their forebears. Among other things, for example, electrical communication both sped up the pace of communication and opened the world: via telegraphic news agencies, newspapers could report events occurring continents away. Here, too, we see a consequence for the Church as the papacy took on an immediacy never seen outside of Rome before the telegraph transmitted papal events and pronouncements immediately to the world . One might ask how much that change in communication practices affected people's thinking about the role of the papacy.

Since communication media form an environment, we should expect that influences run both ways. Religious needs shaped many of the communication technologies, with immense amounts of writing devoted to preserving and elaborating religious texts. Medieval monasteries developed advanced copying systems of rooms full of monks to "mass produce" manuscripts. The first book to come from Gutenberg's press was the Bible. Religious needs led to innovation in architecture and art. Once we begin to describe these things in terms of an environment, we begin to see how much communication media and religion interact.

We, of course, live in the midst of a technology-influenced cultural change. Electronic communication continues the speed of the electrical revolution but also brings high quality visual images and, through television, has introduced a visual culture to rival the earlier focus on print. Computer electronics have enabled instantaneous person-to-person communication (via mobile telephony or Internet communication) as well as self publishing and world-wide distribution of writing, art, and video. The full impact of this changing media environment will reveal itself slowly, but we can already see that we have developed new forms of political commentary (blogs, for example) and interpersonal organization (flash mobs, MySpace, and similar online

ventures), new levels of interpersonal connection (mobile phones, text messages), new patterns of financial investment (microfinance),new kinds of business relationships (eBay and online trading), new kinds of entertainment and creative expression, and new kinds of news reporting, independent of traditional journalism.

Within in this media environment, then, what about theology and Church? If changes in the media environment affect so much else, we should expect those changes to have an impact on the way that people think theologically and the way in which the Church acts. Let's look more carefully at some of the things already mentioned in passing as illustrations of the changing media environment.

Theology in Changing Media Environments

The earliest stage of what we now call theology takes form in the Scriptures themselves; these reflect the formulations of an oral culture—certainly in the Old Testament but also in the New where the Gospels record the oral proclamation of the risen Lord; the Gospels also include the oral teaching of Jesus. Even the early written material (the letters of St. Paul, for example) shows on internal evidence that Paul, following the Greek and Roman custom, dictated his letters to scribes. At this stage, theology consists of narratives—narratives of God's saving help and fidelity to the people of Israel, narratives of Jesus, and narratives of the early Church—as well as commentaries on those narratives, often in the rabbinic style we see in St. Paul. Jesus, teaching within the world of an oral culture, spoke not in abstract terms of the kingdom of heaven, but in concrete parables, comparing the kingdom to wedding banquets, discovery of treasures, farm life, and so on. The early theology of the Church comes from this narrative theology; we can describe the evangelists' theological role as one of selection and arrangement: Matthew highlights Jesus as a teacher of Israel, as the new Moses, while Luke presents Jesus at a series of meals, welcoming all. However we choose to describe it, the theology rests on the narratives. Paul's commentary rests on Old Testament narratives as he seeks to explain the work of Jesus, sometimes in reference to Abraham and other times in concrete images such as the church as the body of Christ. Born in an oral culture, Christian theology takes on those typical patterns.

As the Church grows, its practice and theology make use of characteristic oral patterns: ritual actions recall and re-live the salvation won in Jesus, decorative art (first in the catacombs, then in church buildings) reminds people of key memories, and, yes, written records present the most important things. Throughout the early centuries of the Church, for the great majority of still oral (that is, non-literate) Christians, popes and councils approved the use of art to create the "Bible of the poor," through mosaics, stained glass, and illustrations of salvation history. Theology begins in these heavily oral practices. We should not forget that the images themselves manifest a theology in the choice of subject matter, in the arrangement of their content, and in their functions within worship. These images also form a part of the media environment, which helps shape a theological world view. Even church architecture contributes to a theology, highlighting place and position within the community of worship.

The first 10 centuries or so of the Christian era saw a mix of oral and written forms for theology. Some influential Christians of the early centuries followed oral patterns—Augustine is a good example, since, though literate, he came out of the Latin rhetorical tradition. Almost all of his works began as the spoken word. Scribes wrote out his sermons and books and he revised them for publication. Other Christians of that period wrote extensively and their works show the more abstract patterns of written texts. Early Church Councils produced creeds and other highly

abstract summaries of the faith, showing a familiarity with writing and the influence of the habits of thought made possible by writing.

With much material to remember, oral cultures develop interpretive techniques to make sense of what they remember. A great deal of ancient rhetoric addresses the dual problem of how best to present material orally and how to understand or interpret material so presented. One challenge, then, for later theology lies in understanding just how those early Christians understood and used their theological sources. New Testament scholars now examining the communication practices of oral cultures indicate that the New Testament itself is a "performance text," one intended to be read aloud in an interpretive manner. The New Testament should draw people in, inviting a profession of faith in the Risen Lord. Many things that puzzled textual critics, applying an interpretive procedure developed for written materials, make sense when we apply the interpretive procedures of an oral culture.

To a certain extent we find the origins of later theology in the uses Christians made of these texts, in the careful examination of the texts, in the creation of abstract summaries, in the application of Greek philosophical categories ("person" or "nature" applied to Jesus), in the ongoing reflection on experience, in what Anselm calls "faith seeking understanding." By the high Middle Ages, theology has become a textual activity, with the great theologians commenting on previous work—in many ways an oral activity, but one impossible without written texts, which hold in collective memory much more than any one individual could keep in mind. Aquinas' *Summa*, though structured in an oral form, demands writing simply to organize and record his thoughts. Key thinkers made sure to write out their works, even their sermons. This theology based on written texts shows a much greater attention to analytic detail and to the definition of concepts. In dialogue with philosophy, theology develops into a specific way of dealing with texts and ideas. Here, we find another interpretive paradigm, one that gradually leaves less scope for the classical "senses of Scripture," which were equally comfortable with allegory as with analysis. Later theology, a theology based on writing, favors abstract analysis.

With the printing press and more widespread literacy, theology changes yet again. The Reformation became a textual battleground, with the printing press amplifying the arguments of both sides and the nascent publishing industry using the debates to sell books. Key Church Councils produce highly nuanced texts, describing in technical terminology the Church's orthodox belief, using a specialized vocabulary developed not in speaking but in written texts. On the other side, Reformers encouraged people to read the Scriptures—the Reformation became as much an education reform, teaching reading to all, as a religious reform. The media environment makes such things possible by providing cheap copies of books and an abundance of reading material. Theology moves from the domain of an educated clerical elite to the domain of a growing reading public. Martin Luther took full advantage of this, producing theological commentaries, biblical translations, and books in German, available to a wide reading public. He also presumed the immediacy of the biblical texts, available without any interpretive procedure to all Christians. The Catholic position, on the other hand, interposed an official interpretive group between the texts and the faithful. Over the next centuries, this media environment of texts leads to a split between personal interpretation or devotion and a more and more technical theology, with its own interpretive specialists. Within the Catholic tradition, the fact that theologians worked in Latin, a foreign language to the general population, amplifies the split. Technical experts interpret theology while a less educated (and still largely oral) population lived in a world of devotion.

Without attempting any kind of media determinism, students of media ecology would point out that the more oral Catholic approach worked better in the mission encounters with oral peoples in the Western hemisphere and the Southern hemisphere. On the other hand, Rome proved less comfortable with the attempts of Jesuit missionaries to adapt to the more literate Chinese culture, for example. Similar acknowledgment of the media world highlights the role of images in Christian living, of imaginative prayer and the cultivation of the interior life, of devotional texts, of apparitions and the cult of the saints in Catholicism; of biblical fundamentalism in Protestantism, of revival meetings and religious enthusiasm, of the growth of independent churches within Protestantism. All of these reflected the swirling tides of the media environment and each took advantage of oral or literate culture in a different way. Both oral and literate structures existed side by side in Catholicism and Protestantism, with a literate elite and many non-literate members. The practical life of the Catholic Church and of Christianity in general proved much less organized and predictable than the academic texts of theology. But each aspect does have a media logic, making use of communication and communication products in particular ways.

For example, as literacy and technical theology grew more common, preachers learned the art of the written sermon, often creating lengthy treatises that called for close attention on the part of their hearers. In this, they demanded that an audience (literally "hearers") learned to process written materials. This worked in an age that privileged literacy for those who shared that privilege; for those who did not, very different styles of popular preaching, revivals, and missions appealed to their still dominant oralism. At the same time, church leaders saw the acquisition of literacy as an important religious value and so they stressed schools (Catholics) and Bible study (Protestants). Catholics, however, always maintained a strong oral substrate in an applied theology that stressed ritual, images, devotions, and performance. Today, as the media environment has shifted back to oral forms with radio and television, people seem less comfortable with a predominantly literate Christianity with its written sermons; instead they look for a religious environment characterized by image, performance, and perhaps entertainment.

Media ecology would highlight similar general processes in theology. High levels of literacy led to greater attention to biblical texts for example. On the one hand, this can result in a theology that looks for a literal interpretation of the Scriptures—an interpretation that rests on a static written text and only that material contained in the written text. Because printed books with their identical copies appear context-less in ways that oral discourse cannot, the printed work lends itself to that kind of interpretation. On the other hand, written and printed texts also lend themselves to critical analysis and the creation of critical editions, which allow for higher biblical criticism—a criticism that ironically tries to understand the original "text" with its oral styles. One could also investigate how particular themes or topics enter into theological prominence, influenced by the changing media environment. The greater contact among cultures fostered by ease of communication may well influence studies of inculturation and an awareness of the ways in which Western theology had become so tightly wedded to Greek and Roman cultural forms.

A changing media environment

This admittedly sketchy history shows at least in outline form some ways in which the media environment influences how we think with media in general terms and how in more particular ones theology and church life take place. What about our own current situation? The new media environment grows ever more visual and also features a resurgent orality, even if its

oral quality rests on the written texts of film, television, or radio scripts and the book learning necessary to make the new technologies work. Writing in this media environment must take on oral characteristics—the conversational style, the euphonic sound, but also an agonistic tone and an emotional identification. The new media environment, particularly that fostered by the Internet and mobile telephony, encourages interactivity and has opened the floodgates to wide participation. No longer do written texts or visual productions need to pass through the hands of editors, producers, publishers, or broadcasters. Anyone can publish online and distribute their ideas widely. All of the vetting and verification processes developed for print seem to have broken down. Among other things, this will affect how people experience religious orthodoxy.

We have already seen attempts to harness the sensitivities of contemporary media for church life, with radio and television evangelists, with a rise of enthusiasm, with churches turning to oral forms of entertainment as part of worship, and with a rise of devotional works, some still in writing but others as films or online. We have also seen a greater decentralization of theology, with more discussions of belief occurring online with little interest in the academic credentials of the writers. The teaching office of the Church—still rooted in texts—has less relevance for most people. John Paul II created a very media savvy papacy, becoming one of the most recognized religious leaders in the world. But this came at a cost: more people seem to recall his travels, his actions, and his persona than his teaching—in fact, most probably never read anything he wrote.

A changing media environment will probably lead to other changes in church life and theology, with academic theology continuing a marginal existence in the lives of most believers. These believers will, however, expect more say in the life of the church even while they will assemble their own theological synthesis from the media content surrounding them. Apart from universal figures like the pope, people will reject a church leadership that appears too hierarchical and too little interactive. Believers will seek more interpersonal satisfaction, in a relationship with Christ or with other believers, but in ways consistent with the rest of their (mediated) life experience.

The media environment does matter. It may not change the heart of belief or church, but it does affect how we think and act. That means we should pay attention to the media environment, but not fear it. The Church has lived through media changes before and, guided by God's Spirit, continually finds ways to foster belief and life in Christ.

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